

**Notice of Allowability**

Application No.

10/808,303

Examiner

David D. Le

Applicant(s)

TAKAGI ET AL.

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed on 25 March 2004.
2. ☒ The allowed claim(s) is/are 1-4.
3. ☒ The drawings filed on 25 March 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 07/29/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### **DETAILED ACTION**

1. This is the first Office action on the merits of Application No. 10/808,303, filed on 25 March 2004. Claims 1-4 are pending.

### **Documents**

2. The following documents have been received and filed as part of the patent application:
  - Information Disclosure Statement, received on 07/29/04
  - Foreign Priority Document, received on 07/29/04
  - Declaration and Power of Attorney, received on 07/29/04

### **EXAMINER'S AMENDMENT**

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's attorney, Matthew Schneider, on 01 September 2005.

The application has been amended as follows:

#### *Claim 1:*

- Line 6, "the controlling portion" has been changed to --the controlling unit--; and
- Lines 25-26, "a last but one" has been replaced with --an input value preceding the former--.

Claim 3:

- Line 7, “a process for” has been removed;
- Line 9, “a process for” has been removed;
- Line 10, “wile” has been replaced with --while--;
- Line 11, “the predetermined pre-charge pressure” has been replaced with --a predetermined pre-charge pressure--;
- Line 15, “a process for” has been removed;
- Line 17, “a process for” has been removed; and
- Lines 21-22, “a last but one” has been replaced with --an input value preceding the former--.

Claim 4:

- Line 3, “the engine rotation number” has been replaced with --an engine rotation number--.

***Allowable Subject Matter***

4. Claims 1-4 are allowed.
5. The following is an examiner’s statement of reasons for allowance:

Claim 1:

The prior art of record fails to show or render obvious an automatic transmission comprising a plurality of friction engaging elements, a plurality of shift ranges, and a

controlling unit having a switching means, a learning mode, a means for determining the pre-charge time, a means for moving the friction engaging element, a means for measuring and memorizing the input values, and a means for learning and setting a current time as the pre-charge time when a change of input value due to a decline of the turbine rotation number within the determining cycle fulfills a predetermined noise eliminating condition and a differential between a current input value and a former input value and a differential between the former input value and an input value preceding the former input value exceed a predetermined threshold, as recited in the claim.

Claim 3:

The prior art of record fails to show or render obvious a method for setting the pre-charge time for an automatic transmission, as recited in the claim; specifically, wherein the method includes the steps of:

Determining the pre-charge time based on input values indicating at least a turbine rotation number; and

Learning and setting a current time as the pre-charge time when a change of the input value due to a decline of the turbine rotation number within the determining cycle fulfills a predetermined noise eliminating condition, and a differential between a current input value and a former input value and a different between the former input value and an input value preceding the former input value exceed a predetermined threshold.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- Takagi et al. (U. S. Patent No. 6,872,166) teaches an automatic transmission system and a method for controlling the automatic transmission, as shown in Figs. 3-4.
- Jeon (U. S. Patent No. 6,714,850) teaches a method for controlling the shift action in an up-shift mode operation of an automatic transmission, as shown in Fig. 3.
- Kozaki et al. (U. S. Patent No. 5,911,647) teaches a control apparatus for automatic transmission as shown in Fig. 12.
- Saito (U. S. Patent No. 6,520,882) teaches a shift control system for an automatic transmission as shown in Fig. 3.
- Sakai et al. (U. S. Patent No. 5,925,086) teaches an apparatus and a method for controlling a gear shift, wherein the learning control performs during the torque phase of the clutch engaging process.
- Nishio et al. (U. S. Patent No. 5,938,563) teaches a shift control apparatus for an automatic transmission as shown in Figs. 4-5.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
ddl

  
CHARLES A. MARMOR  
SUPERVISORY PATENT EXAMINER  
ART UNIT 3681